

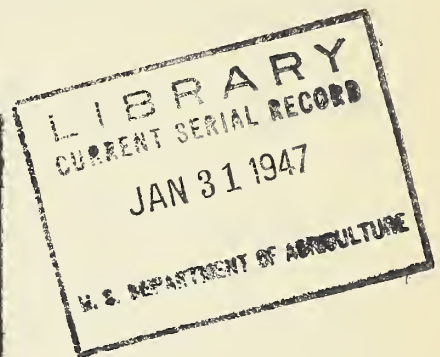
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Marketing Activities



U.S. DEPARTMENT OF AGRICULTURE
Production and Marketing Administration

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Price-Support Programs—A Discussion

By H. B. Boyd

Congress has provided farmers with a form of income security that is similar in many respects to minimum wages and unemployment insurance. This income security is achieved through Federal legislation that directs the Department of Agriculture—through loans, purchases, and other operations—to assure producers of various commodities a minimum price, a "floor," for their products.

Three Kinds of Price-Support Operations

Price support operations fall into three general categories:

1. Under wartime legislation, the Stabilization Act of 1942, prices of "basic" commodities—corn, wheat, rice, tobacco, and peanuts for nuts—are supported through mandatory loans at 90 percent of parity. The price of cotton, also a basic commodity, is supported by loans at 92½ percent of parity. These rates will be maintained for a period of 2 full calendar years following the legal termination of the war.

2. Section 4 (a) of the act of July 1, 1941, as amended—the so-called Steagall Amendment—requires the Secretary of Agriculture to provide, through loans, purchases, or other operations, price support at not less than 90 percent of the parity or comparable price for the non-basic commodities for which the Secretary of Agriculture, by formal public announcement, has requested an expanded production for war purposes. "Steagall" commodities are: Hogs, eggs, chickens over 3½ pounds live weight, turkeys, milk and butterfat, dry peas of certain varieties, dry edible beans of certain varieties, soybeans for oil, peanuts for oil, American-Egyptian cotton, potatoes, and sweetpotatoes. Prices of the Steagall commodities will be supported at not less than 90 percent of parity as in the case of the basic commodities for a period of 2 full calendar years following the legal termination of the war.

The legal termination of the war will come when the President or Congress proclaims that hostilities are ended. If such a proclamation were issued in 1946, price support on the basic and Steagall commodities would extend to January 1, 1949. If the proclamation should be made in 1947, price support on these two groups of commodities would run until January 1, 1950.

3. Section 4 (b) of the act of July 1, 1941, declares it to be the policy of Congress that the lending and purchasing operations of the Department of Agriculture shall be carried out so as to bring the price and income of producers of other commodities to a fair parity relationship with the basic commodities and the Steagall commodities. The law provides, however, that this policy be followed only to the extent that funds are available after taking into account operations with respect to basic and Steagall commodities and the ability of producers to bring supplies into line with demand. Commodities that have been supported

under provisions of Section 4 (b) include wool, cotton linters, naval stores, seeds, sugar beets, sugarcane, and many others..

(In addition to wartime price-support legislation, the Agricultural Adjustment Act of 1938 contains permanent provisions requiring that loans be made to producers of the basic commodities at rates that may range between 52 percent and 75 percent of parity. This act also authorizes loans to producers of any other agricultural commodity at rates to be determined by the Secretary of Agriculture.)

In carrying out its price-support programs, the Department of Agriculture tries, as far as possible, to use normal trade channels. Where loans are made to farmers, the Department makes use of local banks, co-operatives, and other private lending agencies by agreeing to take over loans made to producers in accordance with the program. Likewise, in carrying out price-support purchase programs, the Department frequently enters into contracts with processors and dealers under which they buy farm products through normal trade channels for the account of the Department or for their own account. In the latter event, the Department agrees, subject to conditions established by the Department, to assure processors and dealers of no loss because of the purchase at support prices.

Basic Considerations

The support price is measured from the parity price. And the parity price, for most commodities, is defined officially as "that price for the commodity which will give to the commodity a purchasing power with respect to articles that farmers buy equivalent to the purchasing power of such commodity in the base period; and, in the case of all commodities for which the base period is the period August 1909—July 1914, which will also reflect current interest payments per acre on farm indebtedness secured by real estate, tax payments per acre of farm real estate, and freight rates, as contrasted with such interest payments, tax payments, and freight rates during the base period."

The 1909-14 base period, however, is not used for computing the parity price for some products. Either these commodities were not produced and marketed in significant quantities in that period, or the conditions of production and marketing are so changed now that the 1909-14 period cannot be looked upon as a normal base period for them. For example, parity prices for potatoes are based upon a 10-season average, 1919-28, and parity prices for some types of tobacco are based on the 5-season average, 1934-38.

Let's take corn as one illustration of the way parity prices and support prices are linked. The price of corn, under the Stabilization Act of 1942, is supported at 90 percent of parity by mandatory loans. The loan rates are based upon 90 percent of the parity price at the beginning of the marketing year—October 1.

The parity price of corn on October 1 was computed as follows:

The August 1909-July 1914 average base period price of corn was \$.642 per bushel. The index number of prices paid by farmers, interest, and taxes as of September 15, 1946 (the latest report available on October 1), was 200. Multiplying \$.642 by this index gives \$1.28 as the October 1, 1946, parity price of corn. The loan rate averages 90 percent of the parity price, or \$1.15 per bushel.

This does not mean, of course, that every farmer can put his corn under loan at \$1.15 per bushel. The loan rate for the basic grade of corn ranges, by location, from \$1.05 to \$1.34 per bushel. These varying rates are designed to reflect the national average of \$1.15 per bushel.

There are other provisions in the corn loan program. These cover the grade, the period during which producers may obtain the loans, the rate of interest, and the geographical area covered. Loan programs on other commodities are similar to the corn program. There are variations, however, in the computation of the loan rate, the length of time in which the loans may be obtained, and other factors having a bearing on the particular commodity.

Some programs give producers the choice of obtaining a loan or of selling their products to the Commodity Credit Corporation. The 1946 price-support program on oats, for example, contains both loan and purchase features. Producers have the privilege of putting oats under loan at rates that will average nationally about 53 cents per bushel. But producers in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, and Texas—where storage facilities are inadequate—also have the privilege through December 31, 1946, of selling their oats in carload lots to the Commodity Credit Corporation at the loan rate.

The price-support program on wool is an out-and-out purchase proposition. Under this program, the Commodity Credit Corporation purchases wool at prices that reflect a national average of about 42 cents a pound. This action assures growers of a market for their 1946 clip at prices in line with those of recent years, and encourages orderly marketing. The Commodity Credit Corporation will purchase wool under this program until April 15, 1947.

Administrative Determinations

It can be seen that a variety of support mechanisms are employed—commodity loans, loans and purchases, and outright purchases. Many of these operations have involved inventory takeouts—commitments to processors or dealers to purchase inventories of commodities for which farmers were paid support prices, or inventories of products made from commodities for which farmers were paid support prices. The particular mechanism chosen has been determined administratively. As a matter of fact, a number of basic questions relative to price support have been determined administratively.

For example, price support mechanisms could operate at the farm

level, the local market level, the subterminal level, or the terminal level. Operations are carried on at the level determined administratively to be the most practicable. Operations may be carried on at more than one level.

The Steagall Amendment provides for price support at not less than 90 percent of the parity or comparable price. Thus, the Steagall Amendment establishes a minimum level of support--90 percent of the parity or comparable price--but leaves the way open for price support at higher levels. The Department of Agriculture, when necessary, has undertaken to support prices above the minimum level. For example, the 1946 support price for sugar beets is about 125 percent of parity.

Support price mechanisms for "Steagall" commodities have been designed, to the fullest practical extent, to support prices of commodities as grown and normally marketed at any location and any time. In many cases, however, administrative officials have determined that the most practicable way to do this is by supporting only certain grades or qualities of a commodity.

Under the Steagall Amendment, it would be impracticable, if not impossible, to guarantee an individual farmer the support price on each day he markets his products. This would mean establishment throughout the marketing season of distribution and storage facilities adequate to handle all Steagall commodities at every point where such commodities are marketed by farmers. Inasmuch as it is impracticable to do this, other administrative devices must be used. For example, where local storage facilities are inadequate, producer loan programs may be supplemented by purchase programs and by loans and purchases at subterminal and terminal market levels.

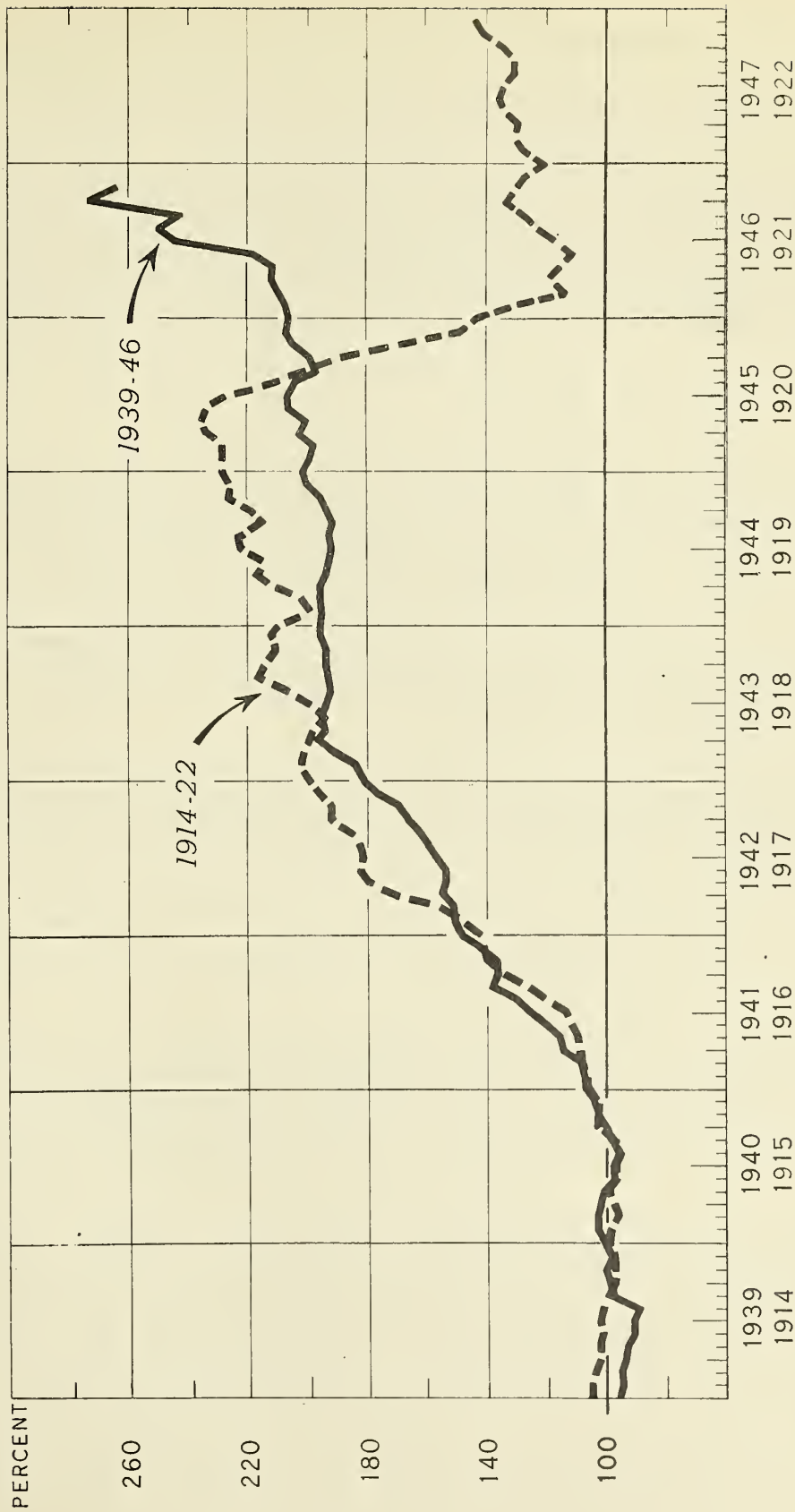
Support Purchases of Potatoes Heavy

This year the Government has been obliged, under the Steagall Amendment, to purchase huge quantities of potatoes from the record 1946 crop in order to support prices. This has been necessary despite the fact that the Government has joined hands with the trade in sales promotion efforts designed to move potatoes through normal channels into human consumption. Some surplus potatoes have been diverted to industrial use, some have been turned over to the school lunch program or to non-profit welfare organizations, some have been used for livestock feed, some have been exported. Every possible outlet has been used, but potatoes have spoiled through lack of marketing outlets. This situation has led to still another administrative determination: In 1947, in an effort to keep production more nearly in line with demand, the Department has announced that growers must keep their acreage within certain allotments to be eligible for price support.

The Department of Agriculture does not believe that Congress intended, in authorizing price-support programs, to encourage production of any crop to the point where production would be far in excess of normal market demand. This means waste all around -- waste of food,

ALL FARM PRODUCTS: PRICES RECEIVED BY FARMERS, UNITED STATES, BY MONTHS, 1914-22 AND 1939-46

INDEX NUMBERS (AUGUST 1909-JULY 1914=100)



U. S. DEPARTMENT OF AGRICULTURE

NEG. 43775

BUREAU OF AGRICULTURAL ECONOMICS

Price-support legislation now in effect is designed to prevent disastrous drops in prices of farm products such as occurred in 1920.

soil resources, manpower, transportation facilities, and—the taxpayers' money.

The Department of Agriculture has taken the position that Congress, in authorizing price-support programs, intended that such programs should be used constructively. Thus, during the war, price-support programs enabled farmers to produce the huge volume of food needed for war purposes. During this present postwar period, the programs—as far as most products are concerned—are helping farmers to reconvert from a wartime to a peacetime production basis. At any time, the programs protect farmers against disastrous price declines, such as took place in the 1930's.

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EGG-GRADING SCHOOL AT RICHMOND

The technique of matching the quality of individual eggs with the official standards was emphasized at an egg-grading school held at Richmond, Va., December 10 and 11. The school, a key part of the training program for Federal-State graders of Virginia, was sponsored by the Division of Markets, Virginia State Department of Agriculture.

Speakers included Harry L. Moore and A. L. Dean, Virginia Polytechnic Institute; Hollis Shomo, Cecil Rogers, and S. S. Smith, Virginia State Department of Agriculture; B. W. Kempers and William E. Hauver, Jr., U. S. Department of Agriculture.

J. H. Meek, Director, Division of Markets, discussed in the closing sessions plans for expanding the official grading service and for identifying quality from producers to consumers.

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THREE MORE WAR FOOD ORDER TERMINATIONS ISSUED

Three more of the disappearing War Food orders were terminated during the month ended December 6, reducing the number outstanding to 21. Terminations included WFO's 139 (certification of slaughtering plants), 149 (cream), and 135 (veterans' preference for new farm machinery and equipment). (The action on WFO 135 becomes effective February 8, 1947.)

During the month, amendments to other orders removed certain restrictions on grain and canned fish. Amendments to WFO 144 (wheat and flour) ended about all its provisions except that covering the use of wheat in mixed feed. Amendments to 141 and 141.1 (use of grain for distilled products) removed restrictions on distillers' use of grain except wheat and wheat products, rye, and corn grading Nos. 1, 2, and 3, and eliminated inventory restrictions and byproduct feed recovery. WFO 66.20 increased brewers' use of grain and grain products in each quota period beginning December 1, 1946, from 90 to 100 percent of the quantity used in quota periods beginning with the same months in 1945. WFO 63.16 removed Norwegian canned fish from import control.

x Research Cuts Cotton Marketing Costs

By John W. Wright

Marketing charges on cotton—from the farm to the processor—amount to about \$200,000,000 on the average crop. That means about \$16 a bale. The Production and Marketing Administration, believing that a part of this huge cost stems from our uneconomic ways of preparing cotton for market and handling it in distributive channels, is conducting a research program to reduce price spreads between growers and processors and to expand marketing outlets.

Raw Cotton Quality and Spinning Performance

One job being done under this research program is a study of how the various measurable physical properties of fibers and other quality factors in raw cotton are related to spinning performance and quality in manufactured products. The findings of this study, which are attracting wide attention in the cotton industry, are being used extensively as a basis for improving cotton varieties, for selecting cotton best suited to specific uses, and for processing more efficiently. Considerations include reduction of the waste in manufacture and the strength and appearance factors of yarns and fabrics.

These physical properties of cotton fibers and other factors of raw cotton quality include fiber strength, length, uniformity, grade, fineness, and maturity. Raw cotton grade and fiber length uniformity have been shown to have a decided bearing on the percentage of manufacturing waste in the picking and carding processes. Finer fibered cottons produce slightly less waste than coarse fibered cottons in the carding process. The effect of fiber length and strength on the percentage of manufacturing waste is not important.

Fiber strength is the most important factor in the strength of carded yarns. Next come fiber length uniformity, fiber length, fineness, grade, and maturity. Uniformity of fiber length materially improves the appearance grade of carded yarns, grade and staple length coming next in importance. Yarns of the best appearance grade come from high-grade cotton of uniform fiber length. The longer cottons usually produce yarns of lower appearance grade.

Fiber strength figures largely in the strength of tire cord. Other important strength factors are fiber length uniformity, classer's grade, and fiber fineness. Length and maturity are not important. Quality factors in raw cotton that affect elongation or elasticity of tire cord are fiber strength and fineness. The greatest degree of elongation is associated with fine-fibered cottons of fairly low tensile strength.

Comparative fiber and spinning tests have been made on official staple length types to determine optimum yarn twist in relation to staple length under the spinning laboratories' recently adopted sys-

tem of long-draft processing. The present official staple length types, selected to represent only staple length and normal fiber character for the respective lengths, provide reasonably satisfactory graduations in spinning value. However, distinct value differences are associated with length graduations in the system of evaluating cotton quality used in marketing transactions and in making Government loans.

Marketing Research

In the last few years a good deal has been done to improve the quality of the U. S. cotton crop through group action to standardize the production of single improved varieties on an area or community basis. Official classification and market news services are provided for groups organized to improve the quality of the cotton they grow.

The growing of other varieties in these so-called one-variety communities has interfered with the effective marketing of pure-variety lots. In various one-variety areas a study is in progress, as an aid in the marketing of locally produced one-variety cotton, to discover its variability in spinning quality. Knowing the variety of the cotton in a bale and where it was grown is a good supplement to knowing the grade and staple length; it provides a more nearly complete index of spinning value and helps to get better results in textile processing.

Another current marketing study is of the methods that manufacturers use to evaluate quality factors in raw cotton. Thus far, the study has included about a third of the active cotton spindles in the United States. Analysis of the preliminary data is expected to show whether existing evaluation methods provide an effective basis for mill purchases for specific uses. Also expected from the study are suggestions of ways of supplementing present methods to provide a more efficient basis for getting the quality of raw cotton needed for best results in manufacturing various cotton products.

Cottonseed Grading and Marketing

Some weak points in the marketing of cottonseed have come to light in the Department's study of methods and problems in the grading and marketing of this product. For one thing, we need better ways of determining weight and quality in transactions between growers and ginneries. Farmers usually sell cottonseed at average prices, regardless of the quality of the individual lot. A survey during the 1944-45 season showed that only about 25 percent of farmers' sales were made on the basis of actual weight. The remainder went according to the estimating methods that various ginneries employ.

The possibility of developing a simplified system of grading cottonseed, one suitable for farmers' use, is under investigation at the Stoneville, Miss., cottonseed laboratory. The project includes (1) a survey of the extreme ranges in the various cottonseed quality factors; (2) a study of the cottonseed characteristics of the leading

commercial cotton varieties; and (3) a study of the variations, in the various cottonseed quality factors, that result from conditions of growth or environment. The studies show that the content of cottonseed oil and residual lint are fairly constant for pure varieties, but that protein content, as indicated in terms of ammonia, varies with growth conditions. The grade has been found to vary during the season with variations in the amount of foreign matter and in the content of free fatty acid. (The content of oil and ammonia showed relatively less fluctuation.)

Seed Cotton Cleaning

The purpose of another recent study was to discover how well mechanically picked cotton could be cleaned. Three standard varieties of cotton with differing fiber characteristics were used--Delta-pine 14, Delfos 651, and Wilds 17. Each variety was subjected to 6 combinations of cleaning machinery, ranging from a minimum of 6 cleaning cylinders and an extractor feeder to a maximum of 12 cleaning cylinders, a master extractor, a 12-cylinder impact cleaner, and an extractor feeder.

Laboratory tests were used to measure how effectively the machines removed foreign matter and what effect the cleaning processes had on the quality of the ginned lint and seed. The simplest of these combinations removed 60 percent of the foreign matter. The most complex combination, which removed 82 percent, improved the ginned lint by about half a grade additional.

The most complex of the cleaning combinations took 19 more pounds of weight out of a bale of cotton than the simplest combination--moisture accounting for a part of the reduction. But the cleaner cotton was worth about \$5 per bale more.

Laboratory tests showed that better cleaning of seed cotton decreased the amount of foreign material in the lint and waste removed in spinning, but fiber length and yarn appearance tended to suffer somewhat as the cleaning machinery combinations became more complex. Yarns spun from lint ginned from excessively cleaned cotton were lower in quality than those from lint ginned from seed cotton cleaned in standard equipment.

The only effect on cottonseed quality of varying the cleaning and drying processes was that the most complex combination lowered the moisture content slightly. Other seed quality factors such as oil, ammonia, residual lint, and free fatty acid were not affected.

Seed Cotton Storage

Although production costs would drop if mechanical harvesting equipment were widely put to use, another result would be a deficiency in ginning capacity--a fact demonstrated already in areas where mechanical pickers have been widely used. Since cotton can be picked mechanically in less than half the time it takes to pick it by hand,

either more ginning capacity is in order, or more storage space for surplus pickings. Indications are that it would be more economical to pre-dry machine-picked cotton mechanically and to condition it in storage than to increase ginning capacity by installing more gin equipment.

The use of this system of storage is likely to result in better conditioning of seed cotton and better utilization of ginning capacity. So the Department of Agriculture is continuing its study of developing a satisfactory system for pre-drying and conditioning machine-picked cotton during storage.

Testing Service

Under the Service Testing Act of 1941, Congress authorized the Department of Agriculture to analyze fiber properties and to make spinning and other tests of the quality of cotton samples upon request by breeders or others on a fee basis. Tests are conducted in laboratories in Washington, D. C.; Clemson, S. C.; Stoneville, Miss.; and College Station, Tex.

Largely on account of this service, cotton breeders are developing greatly improved varieties and strains—cottons of high yield and superior spinning performance. Formerly, breeders spent 8 or 10 years in multiplying a promising variety to accumulate enough lint for commercial spinning tests. Today breeders can submit a little lint for fiber tests, select the most promising types for further increase, and discard undesirable strains during the first year. When enough lint has been collected for a small-scale spinning test, the fiber test results can be verified in actual spinning. Breeders know precisely what they are doing every step of the way, and the development of improved types of cotton has been much speeded up.

By using the testing service, marketing agencies are able to buy and assemble the kind of cotton that mills need. But the millers themselves are the most extensive users of the service. Through it they can learn more about the fiber spinning characteristics of different varieties and growths, and compare the spinning performance of new strains with that of their private types or mixes. The service is much used also by State and by other Federal research agencies in their programs to improve cotton and the ways of harvesting, cleaning, ginning, and packaging it.

USDA ANNOUNCES WOOL ADVISORY COMMITTEE

Membership of a wool advisory committee, composed of representatives of growers, handlers, and manufacturers, has been announced. Purpose of the group is to assist the U. S. Department of Agriculture in the administration of its wool merchandising program.

Meyer To Coordinate

Marketing Research

The National Advisory Committee for the Research and Marketing Act of 1946 has concurred in the placing of E. A. Meyer, PMA assistant administrator in charge of developing plans for and programs to be carried on under the act and for coordinating this work with existing work of the U. S. Department of Agriculture. The announcement was made December 5 by Secretary of Agriculture Clinton P. Anderson.

Approval of the designation and comprehensive recommendations for various types of committees to be used in planning and administering the act were made at a 3-day meeting of the advisory committee that ended on that day. The meeting was the first of the 11-man group appointed by Secretary Anderson on October 24. The next meeting is scheduled for February.

Secretary Anderson said that the designation of Mr. Meyer was to provide a means of intensive preliminary development of the program until the advisory committee could give further study to operations under the act, and until authorized funds are appropriated.

Secretary's Statement

In a statement issued at the conclusion of the final session of the National Advisory Committee meeting, Secretary Anderson said with reference to Department organization:

"The advisory committee, set up to work with the Secretary of Agriculture in implementing the provisions of the new Research and Marketing Act, unanimously approved my position that there should not be at this time a final decision as to the desirability of setting up a separate marketing administration to carry out the provisions of the new law. My reason for delaying the decision at this time is to permit an early general conference between Congressional leaders, representatives of the farm organizations, and the Department of Agriculture itself, to decide the pattern under which the activities called for by this new law will be carried out.

"The report of the House Committee on Agriculture strongly recommends the establishment of a separate Marketing Administration. There now exists in the Department of Agriculture a Production and Marketing Administration. I want clarification from Congressional leaders and

the heads of farm organizations on their current thinking as to whether or not the Department should take steps to separate certain marketing functions and personnel from the present production and marketing administrative machinery. I intend, therefore, to hold the whole matter until a conference can be held, probably early in January, to discuss the entire situation."

Advisory Committee Recommendations

The committee recommended the setting up of a comprehensive group of commodity, technical, and functional advisory committees, with an over-all committee on utilization to be made up of chairmen of a number of the functional and commodity committees and with public and nutrition representation. Commodity committees were recommended for livestock, dairy products, poultry and poultry products, citrus fruits, deciduous fruits, vegetables, potatoes, nuts, grains, feeds and seeds, rice, dried beans and peas, cotton, wool, tobacco, peanuts, soybeans and flaxseed, and such other commodity committees as may be required. The size of these committees should vary with the commodity and preferably should be not fewer than 5 nor more than 11 members. Each member should serve for a period of 1 year, subject to reappointment. The membership of these commodity committees was recommended to be made up of producers, processors, and distributors, including retailers wherever practicable.

The committee said the Department should request organized groups such as farm organizations, processor organizations, and distributor organizations to submit lists of nominations from which the Secretary could make appointments. Technical committees to handle special problems should be appointed as needed, the advisory group recommended.

The group also recommended that the work of the commodity and technical committees be coordinated with the policies of the Secretary and the recommendations of the National Advisory Committee through general committees as follows: Animal products; fruits, vegetables and edible nuts; field crops; fibers; and forest products. Functional committees were recommended for early establishment on transportation, storage, packaging, and foreign trade. Other functional committees should be set up as needed.

The over-all committee on utilization would be made up of the chairman of the general and functional committees and human nutritionists and public representatives.

The Research and Marketing Act was passed just before adjournment of the last Congress, and funds for carrying it out have not been made available. The act authorizes funds in amounts increasing from $9\frac{1}{2}$ million dollars for the current fiscal year to 61 million in 1951.

The act provides for a broad national program of research into basic laws and principles of agriculture and includes research and services in connection with problems of marketing, transportation, and distribution of agricultural products. Special emphasis is given to the development of new uses for agricultural products, the expansion of

present uses, and the improvement of marketing facilities and services to promote a sound, efficient, privately operated distribution system.

Meyer in Government Service 5 Years

Mr. Meyer has served as assistant administrator of FMA since April 1946. He entered Government service in October 1941 as a consultant on canned foods with the Office of Production Management. In March 1942 he became chief of the canned food section of the War Production Board and during the following August was named assistant director of the WFB food division.

In September 1943 he became chief of the industry operations branch of the War Food Administration. He was named associate chief of that agency's fruit and vegetable branch in March 1944, and its chief in August 1944. When the Production and Marketing Administration was formed a year later, he continued as director of the fruit and vegetable branch until he was named assistant administrator.

Born on a farm near Canton, Ohio, Mr. Meyer received an A. B. degree from Goshen College, Goshen, Ohio, and also attended Wooster College, Wooster, Ohio. He served in the Quartermaster Corps of the U. S. Army during the first World War. He entered the food processing business in 1920 and was with the same company from 1920 until 1941—in production, sales, and distribution.

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BRISTLE FROM CASEIN NOW MANUFACTURED

Successful commercial application of its development for making bristles from casein was announced late in November by the U. S. Department of Agriculture. Research on the new product was begun 4 years ago at the Department's Eastern Regional Research Laboratory in Philadelphia in an effort to find a suitable substitute for imported natural bristle. A factory at Salisbury, Md., which opened November 25, will put the process to use.

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NEW METHOD OF PRODUCING TURPENTINE AND ROSIN

A new and more economical method of producing turpentine and rosin was announced by the U. S. Department of Agriculture early in December. It consists of putting preheated "gum" or sap from the southern pine tree into one end of a new-type continuous steam still and taking off turpentine and rosin from separate points at the other end. Developed after several years of research at the Olustee, Fla., naval stores station of the Department's Bureau of Agricultural and Industrial Chemistry, the method is said to be both faster and cheaper than the "batch" method in general use at present.

Rail Freight Rates and USDA

By Grace E. M. Waite

The Interstate Commerce Commission decision of December 5 that authorized a 15 percent rate increase in line-haul service for the basic products of agriculture and livestock, instead of the 25 percent increase originally asked by the carriers, brings into focus a group of U. S. Department of Agriculture activities which during the last year have saved American farmers and food processors millions of dollars. Since USDA's freight rate service began in 1939, total savings of this kind have run to more than half a billion dollars.

The particular case on which the ICC acted recently, known as Ex Parte 162, began in April 1946 when the U. S. Class I railroads filed with ICC a petition asking, with few exceptions, for a flat 25 percent increase in freight rates and for maximum per hundredweight increases of 10 cents on cotton and 15 cents on fresh fruits and vegetables.

Taking the view that such an increase would work an undue hardship upon producers and shippers of agricultural products, the Department acted under the Agricultural Adjustment Act of 1938, which provides that the Department may apply to the ICC for the adjustment of farm-products rates, charges, and tariffs that seem excessive and adversely affect the public interest.

Farmers Pay Twice

The proposed increases would hit farmers twice, because the additional charge would be levied not only on what was shipped from farm to market, but also on the feed, fertilizer, and farm implements they bought for use on the farm.

Some decline in the volume was to be expected, in view of the strikes and the need for reconversion in the national economy, but Department economists doubted that the decline would be as much as was estimated by the railroads. Moreover, these economists believed that a considerable part of the decline would be in military freight, moving at land-grant rates, which would be replaced by traffic in civilian consumer goods moving at full rates.

These land-grant rates were the result of an agreement between the Government and the carriers in the early days of railroading. The Government, which owned most of the land in the unsettled parts of the country, by way of encouragement to railroad building lowered the right-of-way costs of certain carriers in the West and South by granting land paralleling projected routes.

These grants consisted of alternate sections of 6 miles or more on each side of the proposed right-of-way. For their part, most of the grantee carriers agreed to transport U. S. Government mail, freight, and

troops over their roads either free or at 50 percent of regular rates.

Over the years these agreements have continued in effect. During World War II they made a great deal of difference in the Government's freight bill—and in the carrier's income. But after the war ended, the percentage of civilian freight and passengers—moving at full rates—steadily increased.

So the Secretary of Agriculture and the farm and trade organizations asked for time to collect evidence and simultaneously requested the ICC to hold a hearing.

The ICC called a hearing for July 22. Department rate specialists went into action to prevent the big rise. National farm organizations, trade groups, and State public utility commissions joined in the fight.

As a result of the hearing, the ICC temporarily allowed an increase of 3 percent on all basic agricultural products and 6 percent on most other commodities. In addition, a further charge of 5 percent was allowed on all freight moving in the railroads' Official Territory (roughly that part of the U. S. lying east of the Mississippi and north of the Ohio and Potomac Rivers).

The Commission also ruled that hearings should be held later in different parts of the United States to clarify the freight rate situation for the country as a whole. Accordingly, hearings were held during August in Buffalo, Atlanta, Houston, and Salt Lake City.

A rebuttal hearing was held in mid-September in Washington, where the final decision was rendered on December 5.

Wool Rates

Another transportation case, now in progress, is an investigation of freight rates on wool and mohair. This investigation is of special concern to the 400,000 U. S. producers of these commodities, who operate in every State.

Several years ago, at the request of wool and mohair producers' groups, USDA made a survey which indicated that freight rates on grease wool, when compared with rates on other commodities, were excessively high.

This case, begun in 1942, was held in abeyance during the war. After FMA requested its reopening, the ICC early in 1946 embarked on a general investigation of U. S. rail rates on wool. Hearings followed at Chicago, Fort Worth, Denver, Salt Lake City, San Francisco, and Portland, Oreg.

Altogether, 100 transportation specialists, rate experts, economists, producers, and distributors testified in behalf of rate reduction. The carriers were instructed to distribute copies of their ex-

hibits and testimony to the Department of Agriculture and other interested organizations by mid-June in support of their claim that rates were already equitable.

A steering committee was set up to facilitate the handling of details, and representatives of all freight rate territories were appointed. A final hearing of this case has not yet been held. PMA and other interested organizations are expected to present additional evidence.

Fertilizers

After the war the Department renewed its soil conservation efforts. Because its program called for the purchase of large quantities of fertilizers and fertilizer materials for resale to farmers, rail freight rates on fertilizers came in for particular scrutiny. Besides resulting in certain more favorable adjustments affecting PMA's own purchases, this work has benefited fertilizer manufacturers as well.

Among the controversial items are defluorinated or calcined phosphate rock purchased for distribution to farmers. Because defluorinated phosphate is used extensively in soil conservation programs, a specific and equitable rate was asked for it. Eastern rail lines had reclassified defluorinated and (or) calcined phosphate rock from "fertilizer" to "stock and poultry feeds"—a change that would have increased the rate on this material from 2 to 10 cents a hundred pounds. After a PMA protest, the item was withdrawn from the docket.

Other actions affect limestone to be used in soil conservation. PMA shipped 11 million tons of limestone and liming materials in 1945, and will probably ship 12½ million tons in 1946. In the first half of 1946, 27 freight rate reductions were put into effect. A full line of commodity rates was established from three limestone quarries. Work has been done toward the establishment and publication of equitable through commodity rates for phosphate rock, which would save the Government and farmers thousands of dollars.

Other Commodities

Other rate activities of the Department marketing facilities specialists have concerned livestock and meats. In a typical case the railroads applied for relief from the long- and short-haul clause of the Interstate Commerce Act in connection with carload rates on edible livestock to and within Southern Territory. This is the part of the United States lying east of the Mississippi and South of the Ohio and Potomac Rivers. The act states, "It shall be unlawful ... to charge or receive any greater compensation ... for the transportation of passengers or ... property for a shorter than for a longer distance over the same line of route in the same direction...." The case was decided in favor of the Government, saving livestock producers \$100,000.

In another case in which the specialists participated, westbound rates on fresh meats and packing-house products to Pacific coast and in-

termountain territories from midwestern packing centers resulted in a revised rate schedule effective late in 1945.

Fruit and vegetable rates have also come in for much attention. The subjects of some of the actions are as follows: (1) Lower rates for higher carload minimum weights; (2) assessment of \$5 per refrigerator car on Maine potatoes; (3) adequacy of carriers' protective service; (4) refrigerator car mileage; (5) potato refrigeration; (6) minimum carload weights for frozen fruits and vegetables; and (8) transit privileges for canned goods.

Dairy and poultry products have been represented in actions that include (1) settlement of damage claims on carloads of eggs; (2) transportation tests of equipment designed to absorb road shocks to eggs in transit; (3) prohibition of the reuse of fiberboard egg cases; (4) shipping rules and regulations affecting eggs; and (5) freight rates on cheese.

During the last year actions affecting grain and grain products were aimed at (1) relief from the long- and short-haul discrimination in carriers' published rates on grain originating at intermediate points in the Midwest; (2) the establishment of satisfactory rates from Oregon, Idaho, and Utah producing territories to California, Puget Sound, and ports on the Columbia River; and (3) rates on grain moving by barge on the Chicago River on its way to certain destination points.

Besides its work on rail freight rates, actions have also been taken to adjust the freight rates of motortruck, boat, and ship carriers.

Department Authority

Department authority for action in rate matters in behalf of farmers and the public in general was originally authorized in Section 201 of the Agricultural Adjustment Act of 1938. Although marketing charges form a legitimate part of the cost of any commodity, agricultural or industrial, each transportation, handling, or storage cost item must be kept as low as is consistent with the need for allowing a fair return to each agency that renders a necessary service.

In this act, Congress in the interest of farmers and the public authorized the Secretary of Agriculture to go before the Interstate Commerce Commission in cases that concerned the rates, charges, tariffs, and practices relating to the transportation of farm products.

In addition to this authority, the Research and Marketing Act of 1946 broadens the scope of the Secretary's authority. It provides that he may petition with respect to rates, charges, tariffs, practices, and services not only to the ICC, but also to the Maritime Commission, the Civil Aeronautics Board, or other Federal or State transportation regulatory bodies. Or he may work directly with individual carriers or groups of carriers.

* Shifts in Potato Acreages and Yields

By Reginald Royston and George B. Strong

There is definite statistical evidence that potato growing has shifted more and more to the sections where soil, climate, and other factors favor higher yields. This shift, together with more agricultural "know how" on the part of the growers, has resulted in a marked trend toward higher yields. What this trend means, in terms of acreage and production, as well as yields, is shown by the following table:

Potatoes: U. S. acreage, yield, and production, 10-year averages

Years	Acreage harvested (acres)	Yields per acre (bushels)	Production (bushels)
1916-25	3,407,000	102	346,907,000
1926-35	3,300,000	111	368,328,000
1936-45	2,900,000	130	377,377,000

It can be seen that the sharp upward trend in yields has resulted in a net increase in production, despite a decrease in harvested acreage. Thus, a half-million acres formerly used for potatoes are now available for producing other crops.

Yield Factors

A thoroughgoing statistical analysis shows that the national potato yield per acre for any one year is determined by three major factors: (1) Growing conditions during the year; (2) the "potential" yield in each State; and (3) the distribution of acreage among the States.

Growing conditions constitute the most important single factor in determining potato yields in any particular year. Too much rain frequently leads to blight and rot. Prolonged dry weather can mean small, misshapen potatoes or no crop at all. A severe freeze just before digging time can ruin an otherwise fine crop.

It is important to remember, however, that potatoes yield better in some areas, under comparable growing conditions, than they do in others. This can be demonstrated easily by adjusting the yields actually harvested by the reported condition of the crop at harvesttime to determine the 100-percent or potential yield--the yield that would have been expected had growing conditions been 100 percent of normal. Thus, if growing conditions in Ohio had been 100 percent of normal in 1946, the yield per acre for that State would have been in the neighborhood of 170 bushels. But, under the same circumstances, the yield in Maine would have been 362 bushels!

Soil and climate are by no means the only factors that have a bear-

ing on the potential yield of a given State. Other factors playing a part include shifts of acreage within the State, increases in irrigation, increased use of fertilizer and sprays, development of high-yielding varieties, and use of certified seed. No State has a monopoly on improved cultural practices. Improved cultural practices are being followed to some extent in every State. It is believed, however, that improved cultural practices are more generally followed in the high-yielding, commercial potato producing areas than elsewhere.

Shifts in acreage among the States have a decided effect on the yield level. For example, if all the potato growers in the low-yielding areas of the country transferred their operations to the high-yielding sections, the national yield would increase at once. Nobody expects such a wholesale shift in potato-growing operations, but there has been a trend in that direction. This can be demonstrated by grouping the 48 States, on the basis of their 1936-45 average yields, as high-yielding, medium-yielding, and low-yielding States. The percentage of the acreage grown in the 16 high-yielding States increased from 26 percent in 1926-35 to 31 percent in 1936-45. In the low-yielding States, the proportion decreased during the same period from 33 to 29 percent. In the medium-yielding States, the percentage has remained fairly constant at about 40 percent of the total.

High-Yielding States

The 16 high-yielding States include the 6 New England States (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut); New York and New Jersey; 5 of the Mountain States (Idaho, Nevada, Utah, Colorado, and Arizona); and the 3 Pacific Coast States (Oregon, Washington, and California). In this group of States, there has been a pronounced upward trend in both acreage and yields during the years 1928 to 1945. It is noteworthy that in these States the crop is grown largely under irrigation in 8 States and in the other 8 States it is favored by suitable moisture and temperature conditions.

Increased plantings in Maine have generally been in Aroostook County. This county normally produces more potatoes than any State except Maine.

The more important potato area to be developed in recent years is in Kern County, Calif., where acreage has expanded from less than 2,000 acres in 1929 to nearly 62,000 acres in 1946. Production in Kern County in 1946 exceeded production for each State outside California except Maine, New York, and Idaho.

Acreage in the high-yielding Klamath Basin of Oregon and northern California increased from about 6,000 acres in 1928 to about 26,000 acres in 1944.

In New York, there has been a definite shift to higher-yielding areas even though the total acreage has declined. All the decrease in

acreage in that State has been in upstate New York. On Long Island, where yields average at least twice the yields obtained upstate, the acreage has shown a steady increase in recent years. In 1945, about 40 percent of the New York acreage was on Long Island, compared with only 18 percent in 1933.

Medium-Yielding States

The 16 States in the medium-yielding group are widely scattered. Included are 3 States in the eastern Corn Belt (Michigan, Ohio, and Indiana); 7 States in the East and Southeast (Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Florida, and Alabama); 3 States in the western Corn Belt (Iowa, Missouri, and Nebraska); and 3 States in the northern Great Plains area (North Dakota, Montana, and Wyoming). For these 16 States as a group, potato acreage has declined since 1928, while yields per acre have remained on a fairly constant level.

But in 2 of these States--North Dakota and Alabama--there have been fairly definite upward trends in acreage. The increase in the North Dakota acreage has been mostly in the three Red River counties of Walsh, Pembina, and Grand Forks. In 1944, the acreage in these counties was almost as large as the State acreage had been in 1928, and production was about one-third larger. Most of the increased plantings in Alabama have been in Baldwin County, where a commercial early crop is produced.

In Nebraska, there has been a rather sharp downward trend in total potato acreage, but plantings in the irrigated, high-yielding Scotts Bluff County have increased in recent years. The yield in Nebraska, as well as in some other Western States, has increased sharply because of the larger percentage of the acreage under irrigation.

Low-Yielding States

The 16 low-yielding States also are scattered. Included are 5 States in the Southeast (Georgia, Mississippi, Tennessee, Kentucky, and West Virginia); 6 States in the central and southern Great Plains (Kansas, Oklahoma, Arkansas, New Mexico, Texas, and Louisiana); and 4 States in the central and western Corn Belt (Illinois, Wisconsin, Minnesota and South Dakota). For these States as a group, potato acreage has declined sharply since 1928 but the level of yields has shown little change. In Texas, there has been a definite upward trend in acreage, partly because of the production in recent years of a commercial crop for summer harvest in the Panhandle area. In Minnesota and Wisconsin, on the other hand, the acreage harvested in 1945 was less than half what it was in 1928.

Two factors are of major influence in accounting for the low yields in this group of States. First, 9 of the States are predominantly producers of commercial early potatoes, and conditions are not generally favorable for large yields. Second, a large proportion of the acreage in these States is grown for home use and these small home plantings usually give low yields.

ABOUT MARKETING:

The following addresses and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach and mail to the Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

Addresses:

Farm Organizations and Government, by Clinton P. Anderson, Secretary of Agriculture, Portland, Oreg. November 15, 1946. 8 pp. (Mimeographed)

The Dairy Industry in the Future, by Clinton P. Anderson, Secretary of Agriculture, St. Louis, Mo. November 13, 1946. 12 pp (Mimeographed)

A Discussion of the Research and Marketing Act of 1946, by E. A. Meyer, Assistant Director, Production and Marketing Administration, Washington, D. C. November 18, 1946. 7 pp. (Mimeographed)

Our Prospects for More Sugar, by James H. Marshall, Production and Marketing Administration, Miami, Fla. November 21, 1946. 7 pp. (Mimeographed)

Publications:

Citrus: Estimates of Production and Utilization, 1943-44 to 1945-46. (Bureau of Agricultural Economics) October 1946. 5 pp. (Mimeographed)

Monthly Sales of Principal Field Crops, 1945 Crop, by Leading Marketing States and for the United States With Comparisons. (Bureau of Agricultural Economics) November 1946. 13 pp. (Mimeographed)

Feed Statistics: Supplement to the Feed Situation. FdS - Sup. 7. (Bureau of Agricultural Economics) October 1946. 81 pp. (Multilithed)

Maple Products, 1916-46. (Bureau of Agricultural Economics) October 1946. 26 pp. (Multilithed)

Wages and Wage Rates of Seasonal Farm Workers in the Harvest of Selected Deciduous Fruits, California, May-September 1945. (Bureau of Agricultural Economics) June 1946. 34 pp. (Mimeographed)

World Food Situation, 1946-47. WFP 3-46. (Office of Foreign Agricultural Relations) November 1946. 115 pp. (Mimeographed)

